

which in *assamense* is much nearer the aperture. The operculum of *nagaense* does not appear to have so many whorls as our species, a large part of the central portion being quite flat and smooth. These characters appear to be constant in the numerous specimens I have examined of both forms.

DESCRIPTIONS OF NEW JAPANESE LAND SNAILS.

BY HENRY A. PILSBRY AND ADDISON GULICK.

Diplommatina uzenensis Pilsbry, n. sp.

Shell dextral, cylindric-oblong, pale brown or nearly white, finely, delicately and evenly costulate. Whorls 6, very convex, the upper 3 forming a short cone, the last whorl contracted, a little distorted, ascending in front. Aperture subcircular, nearly vertical, the peristome continuous, flatly reflexed, duplicate, having a thin lamina or second peristome close behind the lip in quite mature specimens. Columella concave, ending in a tooth, as usual. Palatal fold less deeply immersed than usual, lying to the left of rather than above the aperture.

Alt. 2.6, diam. 1.4, alt. and diam. of aperture 1 mm.

Nishigo, Uzen (Mr. Y. Hirase). Types no. coll. A. N. S., from no. 510 of Mr. Hirase's collection.

This species is the most northern yet known, I believe. It is decidedly larger than *D. pusilla* Martens, somewhat smaller than *D. nipponensis* Möllddf., which is its nearest ally. The sculpture is about the same as in *nipponensis*, but the cone of the spire is not nearly so long, the later three whorls being large, while in *nipponensis* the last two are wide, the four or five earlier strongly tapering. The palatal fold is further to the left in *D. uzenensis* than in *D. nipponensis*, and the aperture is comparatively larger.

Eulota callizona var. *maritima* Gulick and Pilsbry, n. var.

This name is proposed for the race inhabiting Awaji Island and other districts mentioned below, specimens from Fukura, Awaji, being the types. These differ from *E. peliomphala* and its varieties *brandtii*, *herklotsi* and *nimbosa* in the more conoidal form of the spire; from *E. callizona* and its varieties chiefly in pattern of coloration. These are as follows:

(a) Purple-brown, with light buff streaks.

(b) Corneous and buff with red-brown streaks, a narrow band above the periphery or none, often a dark umbilical patch.

(c) Banded (bands 02345, 00345 or 00305) with deep brown on a pale ground, and generally streaked with opaque buff, or without such streaks.

(d) Corneous, with some opaque, buff streaks above, no bands.

Pattern (a) resembles that of *E. peliomphala nimbosa*; (b) that of *E. callizona congenita*; (c) that of *E. peliomphala* or *peliomphala brandtii*; and pattern (d) that of *E. callizona hickonis*.

Alt. 20-22, diam. 30 mm.

Alt. 19, diam. 25.

We regard the var. *maritima* as very near the original stock which gave rise to *E. callizona* and its varieties, and as a connecting link between these and *E. peliomphala*.

It inhabits Awaji Island, the adjacent shores of the Kii channel on the east, all of Shikoku Island, some parts of the east coast of Kiusiu, and the west end of Iondo, and intergrades on the shore of the Inland Sea with *congenita*, *hickonis* and *amaliæ*.

Eulota luhuana idzumonis Pilsbry and Gulick.

Shell large and solid, with the color-patterns of *E. quæsita* or *perryi*, dull, roughly sculptured with irregular growth-wrinkles, and differing from *luhuana* in the more capacious, less depressed form, and the umbilicus, which is decidedly wider and much more open inside than in *luhuana*. Alt. 30, diam. 43 mm.

Types from Takeya, Idzumo. It has affinities with *senckenbergiana* and the following variety.

Eulota luhuana var. *aomoriensis* Gulick & Pilsbry, n. var.

Shell smooth and glossy, pale buff with deep chestnut bands 00305 (or sometimes 00000, or with wide pale, diffuse bands in place of 2 and 4, as in *E. peliomphala herklotsi* or *E. quæsita perryi*), the spire moderately conoidal, whorls 5, the last capacious; umbilicus deep and more open within than in *luhuana* or *senckenbergiana*. Aperture oblique, the peristome white or reddish, nearly in a plane, but a little advanced sometimes at the termination of band 3.

Alt. 25, diam. 40 mm. (Chojamura.)

Alt. 20, diam. 32 mm. (Asanai.)

Chojamura and Gonohe, Mutsu; Asanai, Ugo (Mr. Y. Hirase).

A more globose and smoother form than *E. luhuana*, and more northern in distribution, inhabiting the northern extremity of Hondo, in Aomori *Ken* or prefecture.

It may be noticed in this connection that towards the north, *h. quassita* becomes smoother and more glossy than toward the southern limit of its range in middle Hondo.

Trishoplita goodwini var. *kyotoensis* PILSBRY, n. v.

Shell rather narrowly umbilicate, thin, somewhat translucent, pale brown throughout, glossy, striatulate, but without spiral lines. Spire low-conic; whorls 5, convex, the last rounded at the periphery, hardly descending in front. Aperture oblique, rounded, about one-fourth of its circumference excised at the parietal margin; peristome narrowly but distinctly expanded. thin, pale. Alt. $5\frac{1}{2}$, diam. $8\frac{1}{2}$ mm.

Kyoto (Mr. Y. Hirase).

This form resembles *T. goodwini* var. *fusca*, but the umbilicus is smaller, there is a half whorl less, and no spiral striæ, which in *fusca* are visible on the base. It is decidedly less conical than *Trishoplita conospira* Pfr. as defined by von Martens, and has a whorl less.

EULOTA MERCATORIA AND E. CALIGINOSA.

These species were treated as distinct in the *Manual of Conchology*, Vol. VI, but in dealing with them in the *Catalogue of Marine Mollusks of Japan* issued by Mr. F. Stearns and myself, I seem to have lost sight of the real differences between them, the intergradation I saw being a matter of color and size rather than of the details of form.

The receipt of a large series of specimens gives opportunity to correct the error I committed of lumping these really distinct species.

Eulota (Euhadra) mercatoria ('Gray' Pfr.).

This species varies in size from 26 to 38 mm. diam., and in color from a pale yellowish-brown to red-chestnut and blackish-chestnut, always with a narrow dark peripheral band bordered with yellowish on each side. In some light forms there is a dark umbilical patch. The pattern therefore varies from that of the *E. succincta* group to the *perryi* or *herklotzi* pattern. The periphery is more or less angular; the base is evenly rounded, and the lower lip in consequence is regularly curved.

Pfeiffer's figure of his type is excellent (Conchyl. Cab. *Helix*, pl. 132, figs. 1, 2, copied in Man. Conch. VI, pl. 31, f. 26, 27). I have figured a smaller specimen in Catal. Mar. Moll. Japan, pl. 10, fig. 5 (by error said to be $17\frac{1}{2}$ mm. diam. in the text, p. 162). *E. mercatoria* occurs on Okinawa.

E. mercatoria atrata n. var.

Much larger than *mercatoria*, very dark colored, and strongly ribbed or costulate; periphery subangular in front. Whorls $6\frac{1}{2}$ to $6\frac{3}{4}$, the last shortly deflexed in front; lip purple-brown, evenly arcuate, not sinuous. Alt. 35, diam. 50 mm.; alt. 32, diam. 46 mm.

Received from Mr. Hirase as from the Loo Choo Is.; from Mr. Stearns as from Okinawa. It is represented in the Cat. Mar. Moll. Jap., pl. 10, f. 4.

Eulota (Euhadra) caliginosa (Ad. & Reeve).

This species differs from *E. mercatoria* in the narrower, more slowly increasing whorls, the last one more swollen below the suture; the flattened base, producing a straighter basal lip; in the different shape of the aperture, and especially in the narrower lip, which is sinuous below, being curved forward at the middle of the basal margin. It is not so solid a shell as *E. mercatoria*, is rounded at the periphery, and has much the coloring of the lighter specimens of *mercatoria*, though the ground is generally yellower. The pale border above the peripheral band is often not well developed, and sometimes it is yellow throughout except the peripheral band.

In the Catal. Mar. Moll. Jap., this species is excellently represented in figures 1, 2, 3 and 6 of plate 10.

It was supposed by Adams and Reeve to be from Mindanao, but there can be no doubt that it is a species of the Loo Choo (Okinawa) fauna.

ON A GENUS (PHYLLAPLYSIA) NEW TO THE PACIFIC COAST.

BY WM. H. DALL.

The Rev. Dr. Geo. W. Taylor, of Wellington, British Columbia, has recently forwarded to me some marine slugs which were found on floating sea-grass near Nanaimo, Vancouver Island. An examination shows that these animals represent a genus, *Phyllaplysia*, not hitherto known except in Southwestern Europe, and an undescribed species.

The animal in most respects differs very little from *P. lafonti* Fischer, the type of the genus. It is subtranslucent, smooth, of a uniform pale lemon-yellow color, very much flattened, resembling some of the Planarian worms. The specimens sent by Dr. Taylor are presumably somewhat contracted by alcohol, which may account